DIP & MV - QUIZ # 5 (5 Marks)

Name/Roll No. _____

1. The primary purpose of a median filter in image processing is _____
   a. To remove salt-and-pepper noise by replacing each pixel with the median of its neighborhood
   b. To smooth an image by averaging pixel values
   c. To enhance edges in an image
   d. To increase the brightness of an image
2. The most effective filter in preserving edges while reducing noise is _____
   a. Average filter
   b. Median filter
   c. Mode filter
   d. Gaussian filter
3. An average (mean) filter _____
   a. replaces each pixel with the most frequent value in its neighborhood
   b. replaces each pixel with the median value in its neighborhood
   c. replaces each pixel with the average value of its neighborhood
   d. replaces each pixel with the maximum value in its neighborhood
4. The key disadvantage of using an average filter compared to a median filter is _____
   a. It is computationally expensive
   b. It cannot reduce Gaussian noise
   c. It requires a large neighborhood size
   d. It blurs edges and fine details in the image
5. Transfer learning help in image denoising tasks by _____
   a. using pre-trained models to extract features and fine-tune them for denoising
   b. generating noisy images for training
   c. increasing the noise in images to improve model robustness
   d. reducing the size of the training dataset

Good Luck